

Has Your Pasture Got The “Right Stuff”

By Renee & Barry Prokop

Black Meadow Suris

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At the beginning of 2005 the owners of Alpaca Vista Suris, located in Washington State, decided to expand their farm to include another location in beautiful Spotsylvania County, Virginia. As the only son of an only son it fell to me to pick up the banner and start this new location. It didn't hurt that I already lived in Virginia and had just bought a 5-acre former horse farm. After many consultations with the “home office” it became apparent that while setting up an alpaca farm had certain common steps, it also needed local advice and expertise to ensure that local differences (soil, forage, pests, weather, etc.) were taken into account.

A critical first step in the establishment of our farm was the pasture preparation. Any pasture should be designed to match the intended animal's nutritional requirements. The farm that we acquired was designed for horses. We were four months away from placing alpacas on them. So we had to redesign the pastures to produce the optimum growing conditions for pasture grass preferred by alpacas. Also, we wanted to create an environment that would produce a healthier grass and therefore, healthier alpacas. The normal alpaca's diet will consist of about 80% forage (2.25 to 2.5 lbs per day) and 20% supplement (.75 lb per day). Alpaca females needs differ during late pregnancy & lactation and will require about 70 % forage (2.5 to 2.75 lbs per day) and 30% Supplement (1 to 1.5 lb per day). Since an alpacas diet is largely forage it is important to have the healthiest grasses for their consumption. This does not necessarily mean the richest grass. Alpacas do best on grasses that are between 10 to 14% Protein (11-12% ideal).

The best sources of information that we found were the local *Cooperative Extension Service, farm co-ops, feed stores, neighboring farms, and landscape nurseries*. We visited the Cooperative Extension Service first since it is a repository for a lot of agricultural expertise, documents and informative websites. However, we learned to come better prepared the next time we visited. We learned that we should allow about two hours to explore what we needed to know to have a healthy pasture for alpacas, as well as getting the local gossip on farm related conditions and current issues. It would also have been better if we showed up with:

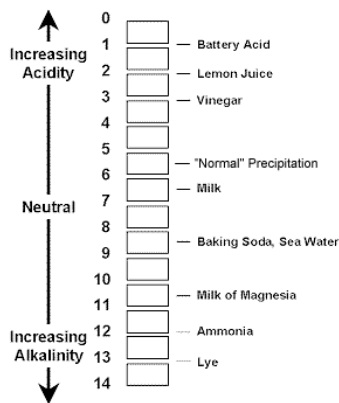
- Pictures of property showing the topology (the lay of the land),
- Close-up pictures of pasture weeds and grasses (or samples), and
- Close-up pictures of pasture trees and bushes (or samples).

Our extension agent talked about the importance of what I call TCM, or Test, Correct, and Maintain.

Testing the Soil

Soil testing is the first analysis that we did to determine what, if anything, needed to be added to the soil to provide the best growing conditions for the alpaca forage. A soil test

should then be conducted every 2 to 3 years in order to provide a baseline for tracking changes in pH and soil fertility. It is great if you bring your farm pictures that show its topology and growing conditions with you to the extension agent so that he can help determine if you need to run multiple soil tests. For our 5 acres, a single composite sample was sufficient. The Extension Agent gave us a form and a box to place the soil into. We then dug (using our trusty shovel) 12-15 pasture core samples from random locations throughout the pastures. Each core sample was about 3-4 inches wide, uniform depth (3-4 inches) and equal amounts for each core sample. We let the core samples dry and then mixed the soil together so that we would have a composite sample. If your topology and growing conditions vary widely you may want to test separate samples. We then filled the box supplied by the Extension Agent and sent it off to the lab for analysis.



The results were returned to us in about 7 days (and it was free). The soil report will provide you with the mineral breakdown and recommended soil treatment. The pH level for our area should be between 6.2 and 6.8. In our case, it was acidic at 5.5 and the report recommended to add 1.75 tons per acre of lime to sweeten the soil. It was also recommended that we fertilize with a 50-30-0 mixture.

Alpacas also require a mineral called Selenium in their diet. Current Virginia soil tests in our area do not measure Selenium (Sodium Selenite, Se) in the soil. However, a forage analysis can be

Selenium enhances the immune function and reproductive performance in alpacas.

provided through the Extension Office to determine amount of Selenium in the forage (\$35 was the price that we were quoted). In most cases though, Selenium will have to be provided as part of an alpaca mineral supplement since selenium levels in many regions are poor. Another reason that a forage test should probably be conducted is to understand the nutritional value of the forage. By understanding the nutritional value of the forage an alpaca owner can better gage what supplements to provide and whether to allow the alpacas unlimited access to the grazing pastures. It is important to note that just like humans, the alpaca's nutritional diet is critical to their long term health and productivity.

Correcting the soil

Based on the soil report, we now understood that we needed to add lime and fertilizer to the soil to bring it up to a point where our forage would grow and prosper. The lime will increase the pH level in the soil, and fertilizer would bring the necessary nitrogen, phosphorous, potassium into the soil to improve growing conditions. We applied the lime and fertilizer to the soil as soon as was practical in order to start to bring the soil up to the optimum Ph level. In fact, lime and fertilizer (phosphate/phosphorus and potash/potassium) may take a year or longer to bring the soil into alignment with your needs: so the sooner the better! We used a drop spreader with aerator spikes (in order to get the fertilizer deeper

Fertilizer has three numbers associated with its contents. The first number is the amount of nitrogen, the second phosphorous, and the third potassium

into the soil) on the back of our lawn tractor and spread it on a windless day. As time and the elements work the lime and fertilizer into the soil, the soil will produce better forage. (If there are alpacas on the property they should not be allowed to graze fertilized pastures until rain has thoroughly dissolved the fertilizer into the soil.) We plan on testing the soil every few years to determine how quickly it is coming into line with what we need. However, while our soil was being balanced, we had to plan for the more immediate issues such as maintaining and growing forage for our arriving alpacas in our existing pastures.

Maintaining Existing Pastures

Weed Control



The first step in maintaining a forage rich pasture is to control the propagation of weeds. I noticed that while the grass was over grazed on our property when we got there, the weeds were doing just fine. In addition, they seemed to especially flourish in and around the old horse dung piles. While I did not have enough sense to take weed pictures or samples with me when I initially met with the extension agent, I did ultimately take pictures and email them to him for identification. I used a digital camera with a close up lens so that they could see leaf and stem detail

(since many weeds look alike from a distance). *Another way that I learned about the weeds was visiting web sites like www.ortho.com (a great pictorial index of weeds and pests complete with recommended solutions) or the Virginia Tech web site <http://www.ppws.vt.edu/weedindex.htm> (a more comprehensive website, but you have to know the name of the weed first to get more information quickly).* One caution I expressed to the Extension Agent was that I wanted to ensure that anything I placed on or in the pastures had to have no adverse effect on the alpacas. We determined that I had four weeds in the pastures; Broadleaf Plantain, Ground Ivy, Pig Weed, and Spotted Spurge. He recommended that I use a pasture friendly weed killers for pasture use. We checked with local Co-op and landscape nursery for the correct mixture. They also recommended that in eliminating weeds, timing is everything. The best times to apply weed killer is when weeds are actively growing which is typically Spring & Summer. In addition, they recommended that we apply the weed killer only in the areas affected by the weeds and not use it as a general application. The extension agent also indicated that by keeping the grass about 4 inches long it will naturally inhibit weed growth.

Growing the grass

The horses that had been on the property prior to our arrival had certainly tried the patience of the

Orchard grass is a tall bunch perennial grass that grows in clumps, rather than forming a smooth sod. It's leaves are a light dull green folded at the base and may grow to a height of 40 inches. Grows best in pH 5.5 to 7.0. Orchard is commonly used for hay and pastures; however, it does not persist under close and continuous grazing and requires a higher level of management than some of the other cool-season forages.

pasture. The pastures were overused and under seeded. Since the Extension Agent has broad information and knowledge about your area forage they will be able to tell you what grows best in your area. In Virginia, the best growing grasses seem to be Fescue, Orchard, and Bluegrass. We looked at the existing grasses and determined that it was light in Orchard Grass. Alpacas seem to enjoy munching on Orchard Grass so after the weed control had been completed, and about three weeks had past (in order to give the weed control time to work and also not affect the new grass seed) we began to overseed with Orchard grass. The reason that we decided to supplement rather than replant was simple. We felt that there was a reasonable blend of grass in the pastures, but it had suffered from overgrazing and from under nourished soil. We believed that if we paid proper attention to the soil, let the pastures rest and naturally rejuvenate, that we could invigorate it with additional Orchard Grass. In addition, newly seeded pastures typically require about 18 to 24 months to become fully established and we did not have that kind of time. We purchased 50 lbs of Potomac Orchard Grass seed at the local feed store and spent the next weekend applying it. It takes typically 10 to 15 lbs of seed per acre and was recommended that we seed in early spring and/or late summer. These requirements are only for Virginia so check with your local extension office or neighboring farms for recommendations. We applied the seed on a day after the grass had dried out from the previous evening's dew. We didn't want to apply the seed on wet grass since it is critical to have the seed in direct contact with the soil (and not stick to the grass itself). We dragged the fields before applying the seed to open up and loosen the soil. We then used our drop spreader attached to the back of our tractor to apply the seed. We then dragged again after seeding to shake and settle seed into the soil.

One final note: in caring and feeding the pastures it is also important to identify and manage the trees, flowers, and bushes in and around your pastures. Some vegetation is actually poisonous to livestock and alpacas. One web site that may be helpful is <http://extension.oregonstate.edu/linn/content1/poisonplants.php>. Also, in the fall the deciduous trees will deposit lovely dead leaves all over your pasture. If the leaves are not picked up, they most certainly will smother the grass that you have just lovingly grown. So you will have to take this into consideration as well. Our western farm swears "our alpacas LOVE our dead maple leaves so they help clean up". In initially surveying the property, we believe that we are at minimum risk, but we will be looking at this more closely in the next year and either cutting back or eliminating any suspect and dangerous vegetation.

The final step in the process was patience. During the first year of growth we will be rotating the alpacas in the pastures more quickly in order to give the new Orchard Grass time to establish itself and prosper. To maintain good Orchard Grass pastures, it is essential to rest pastures 3 to 4 weeks between grazings so that the grass has a change to recover and continue to develop. However, as the



pastures rest, we will still keep busy. There are many projects that we have to attend to in order to be ready for our new arrivals. We have to redesign the fencing, set up watering, feeding and caring stations, establish a relationship with a veterinarian, find hay and many other necessities. We truly believe – what was once a job, has now become an adventure!

About the Authors:

Renee and Barry Prokop have created and developed Black Meadow Suris to provide a diverse collection of suri alpacas. We have a passion for quality customer service and friendliness. Come experience the power that a small dedicated farm can bring to your breeding program! Services that we provide include long and short term agisting, breeding services, and alpaca sales. We also are opening two stores; one online and the other at the farm. Renee and Barry operate Black Meadow Suris just outside of Fredericksburg, Virginia. Fredericksburg is located in the rolling hills just below the falls of the Rappahannock River and halfway between the two Civil War capitals , Washington, D.C. and Richmond, VA.



Renee, who is no stranger to the farm, will manage the day-to-day operations of Black Meadow Suris. Both Barry and Renee will continue to explore, learn, and communicate better ways that they have found to manage their growing farm.

To find out more about Black Meadow Suris, call us at 703-764-9077; email us at Renee@prokops.com or visit us on the web at www.blackmeadowsuris.com

